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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/692,357	10/24/2003	Roger S. Wong	2000-010-B	9365
7590	04/13/2004			
U.S. Army TACOM-ARDEC Attn: AMSTA-AR-GCL M. Sachs / Building 3 Picatinny Arsenal, NJ 07806-5000			EXAMINER ALIMENTI, SUSAN C	
			ART UNIT 3644	PAPER NUMBER

DATE MAILED: 04/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/692,357	WONG ET AL.
	Examiner Susan C. Alimenti	Art Unit 3644

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 24 October 2003.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-18 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-18 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date: _____
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date: _____	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Jacks et al. (US 5,035,181).

Jacks et al. (hereafter Jacks) discloses an explosive loaded projectile with reduced probability of accidental detonation when subjected to an unplanned thermal stimuli comprising a body 13 with an explosive 12 disposed therein, a fuze adapter 35, 50 having an inner threaded surface 51 and an outer threaded surface 36, and a threaded plug 14. The outer threaded surface 36 is secured to the inner surface of the body 13 and the inner threaded surface 51 is secured to the threaded plug.

Regarding claim 2, element 50 of the fuze adapter is a cylindrical ring.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jacks.

Jacks discloses the claimed invention except the fuze adapter dimensions are not cited. It would have been obvious to one having ordinary skill in the art to make the fuze adapter of a structure proportional to the projectile that it is used with, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

9. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jacks in view of Kim et al. (US 6,338,242).

Jacks discloses the claimed invention except the material of the fuze adapter is not disclosed. Kim et al. (hereafter Kim) discloses an adapter for an explosive loaded projectile that provides a venting system in the event that the projectile is exposed to an unplanned thermal stimulus. Kim teaches making the adapter out of a thermoplastic material "for increasing simplicity and reliability of the system" (Kim, col. 3, lns.42-46). It would have been obvious to one having ordinary skill in the art to make Jacks adapter of a thermoplastic material, since it has been held to be within general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

10. Claims 6-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jacks as applied to claim 1 above, and further in view of Reibel (US 4,365,556).

Jacks discloses the claimed invention except the use of an insensitive melt-castable explosive is not positively cited. Reibel teaches the use of a cast explosive in a projectile and it is also noted that the use of such an explosive is widely known in the art. It would have been

obvious to one having ordinary skill in the art at the time the invention was made to use a cast explosive in a projectile as an obvious design choice.

Regarding claims 7-10, element 65, 67 of Jacks' fuze adapter is made of a material that when heated to a predetermined temperature will melt and allow the internal pressure to expel element 50 creating a vent area for gases being burned off from the explosive, thus preventing an unintentional detonation.

Regarding claim 11 while Jacks projectile is ogival in shape it does not positively claim that the shell of the body is constructed of steel. Steel is a commonly used material in the construction of munition shells and is considered to be an obvious design choice to one having ordinary skill in the art at the time the invention was made.

11. Claims 12-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jacks as applied to claim 1 above, and further in view of Jenson (US 4,549,487).

Jacks discloses the claimed invention except the full structure of the projectile is not disclosed. Jenson discloses an explosive loaded projectile comprising an obturating ring 23, a tail fin 16 with a plurality of tail fins 20 secured to the body portion 12 via a threaded connection, an ignition cartridge 43, vent holes 15, and a propellant charge 38 (Jenson, Figures 1-3).

### *Conclusion*

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Susan C. Alimenti whose telephone number is 703-306-0360. The examiner can normally be reached on Monday-Friday, 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles T. Jordan can be reached on 703-306-4159. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

11. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SCA

*Charles T. Jordan*  
**CHARLES T. JORDAN**  
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